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09/866,245	05/25/2001	Nanami Miki	450100-03244	4576
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RAMAN, USHA				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/866,245

Applicant(s)

MIKI ET AL.

Examiner

USHA RAMAN

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 6, 7, 9-15, 18, 21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 7, 9-15, 18, 21 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 1st, 2008 has been entered.

Response to Arguments

2. Applicant's arguments filed May 1st 2008 have been fully considered but they are not persuasive.

Applicant argues (see Remarks page 11) that, "neither of the references used as a basis for rejection describe when the additional keyword is received in the receiving step, the input retrieval keyword is extracted from the dictionary database as a function of the additional keyword in the extracting step". Firstly it is noted that the it is the input retrieval keyword that is received in the receiving step and the additional keyword is extracted from the dictionary database and not the other way as has been recited in the claim language. As such the claim has been considered as, "the input retrieval keyword received in the receiving step and the additional keyword is extracted from the dictionary database as a function of the input retrieval keyword in the extracting step". In arguing that neither references teach the claimed limitations, applicant states (see page 11) that, "in the Huxley system

users may input a complete term or just a few letters of any keyword term to get a result list that shows keywords that begin with that string as well as those that have the string characters embedded within". Examiner respectfully disagrees. Consider the example of Huxley where the user inputs keyword of "cult film" (see figure 29) as under the "category" genre. Figure 31 subsequently shows all titles that are relevant to the category of "cult film", where in the titles presented in figure 31 neither have the input retrieval string characters embedded within nor do they begin with the input retrieval string. In fact, Huxley shows at least one additional keyword (title of movie, such as "Glen and Glenda") that is relevant to the input retrieval keyword but belongs to a different genre (results show a list of "titles") from the genre of the input retrieval keyword (the query keyword was of genre "category"). When the user inputs the "cult film" keyword, all the results presented in response are titles that are relevant to the "cult film" category. Accordingly the modified system further shows the step of "when the input retrieval keyword received in the receiving step and the additional keyword is extracted from the dictionary database as a function of the input retrieval keyword in the extracting step

For these reasons stated above, the rejection is maintained.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 6-7, 9-15, 18, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 1 recites the limitation, "wherein, when the *additional* keyword is received in the receiving step, the *input retrieval* keyword is extracted from the dictionary database as a function of the *additional* keyword in the extracting step". The claim is rendered indefinite because it is the input retrieval keyword that is received in the receiving step (and not the "additional" keyword as recited) and it is the additional keyword that is extracted from the dictionary database (and not the input retrieval keyword as recited) as a function of the input retrieval (not additional keyword) keyword in the extracting step. The claim has been examined by considering limitations as: the input retrieval keyword received in the receiving step and the additional keyword is extracted from the dictionary database as a function of the input retrieval keyword in the extracting step.

Claims 6-7, and 9-10 are rendered indefinite in scope due to dependence on indefinite claim 1.

Independent claim 11 recites the limitation "wherein when the additional keyword is input by the input means, the input retrieval keyword is extracted from the dictionary database as a function of the additional keyword by the extracting means". The claim is rendered indefinite because it is the input retrieval keyword that is input by the input means (and not the

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"additional" keyword as recited) and it is the additional keyword that is extracted from the dictionary database (and not the input retrieval keyword as recited) as a function of the input retrieval (not additional keyword) keyword by the extracting means. The claim has been examined by considering limitations as: the input retrieval keyword input by the input means, the additional keyword is extracted from the dictionary database as a function of the input retrieval keyword by the extracting means.

Claims 12-15, 18 and 21 are rendered indefinite in scope due to dependence on indefinite claim 11.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 6, 9-13, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6,134,547).

In regards to claim 1, Schein teaches an electronic program guide retrieval method (see column 1, lines 49-56) comprising the steps of:

Receiving an input retrieval keyword from a client side (see column 2, lines 18-23);

Accessing a dictionary database based on an input retrieval keyword; (see column 13, lines 33-39).

Extracting at least one additional keyword (e.g. additional keywords are shown as relevant results for query "DR.") from dictionary database as a function of the input retrieval keyword, wherein each of the plurality of additional keywords are related to the input retrieval keyword (see column 13, lines 36-43).

Schein additionally discloses searching an electronic program guide database (see column 13, lines 10-16) that stores electronic program guide data as a function of the first keyword and at least one of additional keywords (in order to find a relevant search results to a user's query, the EPG data has to be stored with a portion of the keyword, that enables it to be identified as a query result); and

Schein shows the step of identifying programs of interest related to a particular perform of interests (e.g. input retrieval keyword was of performers genre, and user enters "Seinfeld" under the category performer, the system would identify the Jerry Seinfeld series as being of potential interest to the user, See column 13, lines 10-20), and therefore shows the correlation of keywords of one genre to another genre in the EPG. While Schein shows the system flagging titles in favorites that maybe of interest based on a given performer, Schein is silent on the step of retrieving additional keyword from the dictionary database based on an input search query.

In an analogous art, Huxley discloses a flexible database search operation, wherein the user may submit a query under one category, and the system retrieves additional keyword of from another genre (see column 7, lines 35-50). Examples are illustrated in figures 36-41, wherein search for John Williams (name genre) shows additional retrieved keyword (job title genre, 'American Composer', see figure 37) as well as additional retrieved keyword (movie title genre, see fig. 38) related to the name. See also figures 29-32. Furthermore, when the user inputs the "cult film" keyword, all the results presented in response are titles that are relevant to the "cult film" category, i.e. results are presented as a result of correlating the database entries with a input retrieval keyword to find a match. For example, Huxley shows at least one additional keyword (title of movie, such as "Glen and Glenda") that is relevant to the input retrieval keyword but belongs to a different genre (results show a list of "titles") from the genre of the input retrieval keyword (the query keyword was of genre "category"). See figures 29, 31 and column 7, lines 35-44. Accordingly Huxley further teaches the step of "when the input retrieval keyword received in the receiving step and the additional keyword is extracted from the dictionary database as a function of the input retrieval keyword in the extracting step.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Schein in view of Huxley's flexible search methods, so that when a user enters a particular keyword, additional keywords related to the input keyword can be extracted even when the

additional keyword are of different genre than the input keyword. Accordingly, each and every limitation of claim 1 is taught by the combination of Schein in view of Huxley.

Claim 11 is an apparatus claim corresponding to the method claim 1, and is analyzed and rejected as previously discussed.

As to claim 6, Schein discloses a method wherein the retrieval keywords and the at least one extracted additional keyword are interrelated to each other. (Schein column 13, lines 1- 20 & 33-48). Accordingly, each and every limitation of claim 6 is taught by the combination of Schein in view of Huxley.

Applicant's claim 9 recites the EPG of claim 1, where when the particular genre is relevant to cooking, while the different genre is relevant to cooks. As discussed above, the combined teachings of Schein and Huxley teach the limitation where user may input any type of keyword, and additionally, when searching for a name, the additional keyword displays the job title of the person as well as the movies/programs affiliated with the name. Examiner further takes Official Notice that at the time of the invention, programs of cooking genre were well known in the art at the time of the invention and as such EPG contained program information of programs related cooking genre. As such it would be obvious to further modify the system to enable a user to input a keyword pertaining to a cook (e.g. Julia Child) and obtain show/movie titles related to the cook. Thus, Schein, and Huxley contain all limitations of claim 9.

Applicant's claim 10 recites the EPG of claim 1, wherein the particular genre is relevant to place names; the different genre is relevant to names of persons. The example of Huxley discloses that when a user types in a keyword such as 'John Williams', the related search retrieves additional keyword related to the person wherein the additional keyword includes an adjective related to place name (e.g. American Composer). Huxley additionally discloses that any keywords maybe used as an input retrieval keyword. Therefore there exists scenarios, wherein a user may enter "American composer" (i.e. input retrieval keyword genre has an adjective related to place names) and the retrieved keywords is names of people that are American composers. Therefore the combined teachings of Schein, and Huxley contain all limitations of claim 10.

As to claim 12, Schein's system contains a database, which could be located in the set-top box, television, or the like (i.e., client side). (column 9, lines 21-36). Accordingly, each and every limitation of claim 12 is taught by the combination of Schein in view of Huxley.

As to claim 13, Schein teaches a system containing a database, which could be accessed via the Internet (i.e., data server side), see column 8, lines 62-67 thru column 9, lines 1-9. Accordingly, each and every limitation of claim 13 is taught by the combination of Schein in view of Huxley.

Applicant's claim 21 recites the EPG system of claim 11, wherein the program information includes data relevant to place names. As discussed above, the combination of Schein in view of Huxley contains all limitations of

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claim 1. Specifically, Schein discloses a method of searching an EPG database (column 1, lines. 49-56), wherein, via an interface, a user can enter certain attributes (i.e., keywords) (column 2, lines 18-23), which retrieve information relevant to the entered keyword from the EPG database (column 12, lines 66-67 thru column 13, lines 1-20 & 33-48). Once the relevant information is retrieved, the user selects the desired EPG data (column 13, lines 33-48). But, Schein fails to specifically disclose whether the program information retrieved can be relevant to place names. However, since Schein's system can retrieve any information contained on the database, which is relevant to the keyword, it would have been obvious that this information could contain data relevant to place names if the user entered a keyword related to a place name. For example, if a user enters "cowboys" as a keyword, Schein's system would likely retrieve a Dallas Cowboys football game to be played in Texas. Or, if a user were to input "geographic", Schein's system would likely retrieve any programs listed on the geography channel, some of which would be relevant to place names. In essence, would have been obvious that Schein's system could retrieve data relevant to place names because it is highly likely various programs listed on the database are related to or contain place names. Thus, Schein contains all limitations of applicant's claim 21.

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7. Claim 7 is rejected under 35 U.S.C. 103(a) as being patentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6,134,547) and further in view of Livowsky (US Pat. 6,598,030).

Applicant's claim 7 recites the EPG of claim 1, wherein when part of a retrieval keyword is entered, the entire keyword and the relevant-keyword information are retrieved from a database storing previously input keywords in a predetermined order. As discussed above, the combination of Schein in view of Huxley contains all limitations of applicant's claim 1, and additionally discloses that when a partial keyword is input, at least one additional keyword maybe extracted (see Schein, column 13, lines 34-43) but fails to disclose whether the system is capable of storing previously entered keywords in a predetermined order. However, within the same field of endeavor, Livowsky discloses a method of searching a database, whereby the database "learns" from a user's past entries (i.e., keywords) and updates the database accordingly. (column 2, lines 26-33; column 8, lines 8-15). Therefore, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to combine the modified teachings of Schein and Beach with the "learning" capability of Livowsky's database in order to provide the user with a more expansive and flexible searching tool, which would be capable of updating the database.

8. Claim 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6,134,547) and further in view of Beach et al. (US Pre Grant Pub. 2003/0014753).

Applicant's claim 14 recites the EPG system of claim 11, wherein said client downloads and stores the program information. As discussed above, Schein and Huxley contain all limitations of claim 11, but fail to teach whether the client is capable of downloading and storing program information. However, within the same field of endeavor, Beach further discloses the client unit is capable of downloading and storing program information. (Page 1, Par. (0018)). Therefore, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to combine the modified EPG of Schein in view of Huxley with the client side downloading/storing capability of Beach in order to provide the client with an efficient method of storing EPG programming.

9. Claims 15 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6,134,547) and Livowsky (US Pat. 6,598,039).

Applicant's claim 15 recites the EPG system of claim 11, wherein the client access a necessary part of the data server via a routing server, which stores route information for the data server. As discussed above, the combination of Schein and Huxley contains all limitations of applicant's claim 11, but fails to disclose the additional limitations of claim 15. However, within

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the same field of endeavor, Livowsky discloses a searching database wherein the user accesses the desired portion of the system database (i.e., data server) via a system server, which distributes (i.e., routes) the search requests among core engines (column 2, lines 44-57; column 4, lines 1-12 & 30-36). Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the EPG of Schein and Huxley with the multiple server system of Livowsky in order to provide a more efficient searching system.

In regard to claim 23, Schein discloses an EPG retrieval system comprising:

A data server including a plurality of databases, one of which is a television electronic program guide database for storing program information of an EPG (see column 8, lines 62-67 and column 9, lines 1-9) containing only (this is inherent because Schein teaches identifying each show with various identifiers so that a selection/search criteria matching that identifier produces results matching only those preset identifiers defined by a EPG provider and not some arbitrary identifier; see column 11, lines 46 thru column 14, line 10) keywords determined by an EPG provider as retrieval keywords;

A client having a certain data storage capacity (hard disk 14) comprising input means (user input 20) for inputting a retrieval keyword for retrieving the program information (see column 3, lines 24-32);

A dictionary database provided at the data server side and the client side for storing retrieval keywords and relevant keywords to said retrieval keywords (see column 13, lines 33-43);

Receiving an input retrieval keyword from a client side (see column 2, lines 18-23);

Extracting at least one additional keyword (e.g. additional keywords are shown as relevant results for query "DR.") from dictionary database as a function of the input retrieval keyword, wherein each of the plurality of additional keywords are related to the input retrieval keyword (see column 13, lines 36-43).

Schein additionally discloses searching an electronic program guide database (see column 13, lines 10-16) that stores electronic program guide data as a function of the first keyword and at least one of additional keywords (in order to find a relevant search results to a user's query, the EPG data has to be stored with a portion of the keyword, that enables it to be identified as a query result); and

Schein shows the step of identifying programs of interest related to a particular perform of interests (e.g. input retrieval keyword was of performers genre, and user enters "Seinfeld" under the category performer, the system would identify the Jerry Seinfeld series as being of potential interest to the user, See column 13, lines 10-20), and therefore shows the correlation of keywords of one genre to another genre in the EPG. While Schein shows the system flagging titles in favorites that maybe of interest based on a given

performer, Schein is silent on the step of retrieving additional keyword from the dictionary database based on an input search query.

In an analogous art, Huxley discloses a flexible database search operation, wherein the user may submit a query under one category, and the system retrieves additional keyword of from another genre (see column 7, lines 35-50). Examples are illustrated in figures 36-41, wherein search for John Williams (name genre) shows additional retrieved keyword (job title genre, 'American Composer', see figure 37) as well as additional retrieved keyword (movie title genre, see fig. 38) related to the name. See also figures 29-32. Furthermore, when the user inputs the "cult film" keyword, all the results presented in response are titles that are relevant to the "cult film" category, i.e. results are presented as a result of correlating the database entries with a input retrieval keyword to find a match.. For example, Huxley shows at least one additional keyword (title of movie, such as "Glen and Glenda") that is relevant to the input retrieval keyword but belongs to a different genre (results show a list of "titles") from the genre of the input retrieval keyword (the query keyword was of genre "category"). See figures 29, 31 and column 7, lines 35-44. Accordingly Huxley further teaches the step of "when the input retrieval keyword received in the receiving step and the additional keyword is extracted from the dictionary database as a function of the input retrieval keyword in the extracting step.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Schein in view of Huxley's flexible

search methods, so that when a user enters a particular keyword, additional keywords related to the input keyword can be extracted even when the additional keyword are of different genre than the input keyword. Accordingly, each and every limitation of claim 1 is taught by the combination of Schein in view of Huxley.

The combination of Schein and Huxley however fails to disclose a routing server having an access unit for accessing selectively the database and routing information, wherein the client sends the relevant keyword to the routing server and accesses one of the databases via the routing server and performs retrieval by accessing program information by selecting the route to the database.

Livowsky discloses a searching database wherein the user accesses the desired portion of the system database (i.e., data server) via a system server, which distributes (i.e., routes) the search requests among core engines (column 2, lines 44-57; column 4, lines 1-12 & 30-36).

It would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the EPG of Schein and Huxley with the multiple server system of Livowsky in order to provide the client access to databases at the data server using routing servers for various routes for load balancing, thereby providing a more efficient searching system.

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10. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6,134,547) and further in view of Lee et al. (US Pat. 6,463,428).

Applicant's claim 18 recites the EPG system of claim 11, wherein said dictionary database stores previously input keywords so that the input keywords are included in the relevant-keyword information, and the stored keywords are arranged in order of frequency of use. As discussed above, the combination of Schein in view of Huxley contains all limitations of claim 11, but fails to teach the limitations of claim 18. However, within the same field of endeavor, Lee et al discloses a system capable of storing keywords and ranking them based upon their frequency of use (column 5, lines 8-16; column 15, lines 10-64; Fig. 18). Accordingly, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to combine the EPG of Schein with the retrieval keyword storage capability of Lee et al in order to provide the user with a more efficient searching system.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USHA RAMAN whose telephone number is (571)272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331.

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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Usha Raman/

/Chris Kelley/

Supervisory Patent Examiner, Art Unit 2623